

What Is Claimed Is:

1. A foldable portable radio terminal, comprising:

a portable radio terminal body including a first body and a second body connected for pivotal folding movement to each other;

an antenna mounted on said first body;

an antenna matching circuit for determining an antenna characteristic of said antenna; and

a matching characteristic changeover circuit for changing over the characteristic of said antenna matching circuit so that the antenna characteristic when said portable radio terminal body is folded and the antenna characteristic when said portable radio terminal body is not folded are equal to each other.

2. A foldable portable radio terminal as claimed in claim 1, further comprising a folded state detection circuit for detecting whether or not said portable radio terminal body is folded and issuing a detection signal representative of a result of the detection, and wherein said matching characteristic changeover circuit changes over the characteristic of said antenna matching circuit in response to the detection signal of said folded state detection circuit.

3. A foldable portable radio terminal as claimed in claim 2, wherein said antenna matching circuit determines the antenna characteristic in a state wherein said portable radio terminal body is folded, and said matching

characteristic changeover circuit changes over the characteristic of said antenna matching circuit so that the antenna characteristic of said antenna matching circuit when said portable radio terminal body is not folded may be equal to the antenna characteristic in the state wherein said portable radio terminal body is folded.

4. A foldable portable radio terminal as claimed in claim 3, wherein said matching characteristic changeover circuit is connected to said antenna and supplies current so as to cancel high frequency current distributed in said portable radio terminal body in order to eliminate variation of the high frequency current between when said portable radio terminal body is folded and when said portable radio terminal body is not folded.

5. A foldable portable radio terminal as claimed in claim 4, wherein said matching characteristic changeover circuit includes:

a first capacitor connected to an antenna feeding point;

an inductor connected at an end thereof to said first capacitor and grounded at the other end thereof; and

current production means for supplying current to said inductor.

6. A foldable portable radio terminal as claimed in claim 5, wherein said current production means includes a diode for supplying current to a connection point between said first capacitor and said inductor, and a resistor connected in series to said diode.

7. A foldable portable radio terminal as claimed in claim 6, wherein

said current production means further includes a second capacitor connected at an end thereof to a connection point between said diode and said resistor and grounded at the other end thereof.

8. A foldable portable radio terminal as claimed in claim 5, wherein  
5 the capacitance value of said first capacitor and the inductance value of said inductor are determined so that said antenna matching circuit exhibits an optimum antenna characteristic when said portable radio terminal body is folded.

9. A foldable portable radio terminal as claimed in claim 6, wherein  
10 said current production means applies a voltage to said resistor to turn on said diode to supply current to said inductor when said folded state detection circuit detects that said portable radio terminal body is not folded.

10. A foldable portable radio terminal as claimed in claim 5,  
15 wherein said antenna includes a helical antenna having an antenna feeding point at a base portion thereof.

11. A foldable portable radio terminal as claimed in claim 10,  
wherein said helical antenna is provided at a tip end of a whip antenna mounted for telescopic movement into and out of said portable radio terminal  
20 body, and the base portion of said helical antenna serves as the antenna feeding point when said whip antenna is accommodated in said portable radio terminal body.

12. A foldable portable radio terminal as claimed in claim 2,  
wherein said antenna matching circuit determines the antenna characteristic  
in a state wherein said portable radio terminal body is not folded, and said  
matching characteristic changeover circuit changes over the characteristic  
5 of said antenna matching circuit so that the characteristic of said antenna  
matching circuit when said portable radio terminal body is folded may be  
equal to the antenna characteristic in the state wherein said portable radio  
terminal body is not folded.

13. A foldable portable radio terminal as claimed in claim 12,  
10 wherein said matching characteristic changeover circuit is connected to said  
antenna and supplies current so as to cancel high frequency current  
distributed in said portable radio terminal body in order to eliminate  
variation of the high frequency current between when said portable radio  
terminal body is not folded and when said portable radio terminal body is  
15 folded.

14. A foldable portable radio terminal as claimed in claim 13,  
wherein said matching characteristic changeover circuit includes:

a first capacitor connected to an antenna feeding point;

an inductor connected at an end thereof to said first capacitor and  
20 grounded at the other end thereof; and

current production means for supplying current to said inductor.

15. A foldable portable radio terminal as claimed in claim 14,

wherein said current production means includes a diode for supplying current to a connection point between said first capacitor and said inductor, and a resistor connected in series to said diode.

16. A foldable portable radio terminal as claimed in claim 15,  
5 wherein said current production means further includes a second capacitor connected at an end thereof to a connection point between said diode and said resistor and grounded at the other end thereof.

17. A foldable portable radio terminal as claimed in claim 14,  
10 wherein the capacitance value of said first capacitor and the inductance value of said inductor are determined so that said antenna matching circuit exhibits an optimum antenna characteristic when said portable radio terminal body is not folded.

18. A foldable portable radio terminal as claimed in claim 15,  
15 wherein said current production means applies a voltage to said resistor to turn on said diode to supply current to said inductor when said folded state detection circuit detects that said portable radio terminal body is folded.

19. A foldable portable radio terminal as claimed in claim 14,  
20 wherein said antenna includes a helical antenna having an antenna feeding point at a base portion thereof.

20. A foldable portable radio terminal as claimed in claim 19,  
wherein said helical antenna is provided at a tip end of a whip antenna

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mounted for telescopic movement into and out of said portable radio terminal body, and the base portion of said helical antenna serves as the antenna feeding point when said whip antenna is accommodated in said portable radio terminal body.